

Topographic Maps for the Nation

US Topo is the next generation of topographic maps from the U.S. Geological Survey (USGS). Arranged in the familiar 7.5-minute quadrangle format, US Topo digital maps are designed to look, feel and perform like the traditional paper topographic maps for which the USGS is so well known. In contrast to paper-based maps, US Topo maps provide technical advantages that support faster, wider public distribution and enable basic, on-screen geographic analysis for all users.

US Topo maps are available free on the Web. Each map quadrangle is constructed in GeoPDF® format from key layers of geographic data (orthoimagery, roads, geographic names, topographic contours, and hydrographic features) found in *The National Map*.

US Topo maps can be printed from personal computers or plotters as complete full-sized, maps, or in customized sections, in a user specified format. Paper copies of the maps can also be purchased from the USGS Store.¹ The US Topo Web site³ features downloadable links and a users guide.

US Topo users can turn geographic data layers on and off as needed; they can zoom in and out to highlight specific features or see a broader context. File size for each digital 7.5-minute quadrangle, about 15-20 megabytes, is suitable for most users. Associated electronic tools for geographic analysis are available free for download.



US Topo of Coffeyville East, Kansas (foreground), replaces older map of the same area (background). Data layers generated from US Topo digital files can be viewed on screen and printed.



What Makes US Topos Different from Other Electronic Maps?

- Richer content, multiple layers of data; more than a street map
- Can be used on the computer or printed to scale
- Look and feel like legacy paper USGS topographic maps but have technical advantages
- Made from nationally consistent data that are quality assured to high standards
- Downloadable free from the USGS Store¹
- Free downloadable user tools
- Users can select from various reference systems: Latitude-Longitude, UTM (Universal Transverse Mercator), MGRS (Military Grid Reference System)
- Direct “mash-up” capabilities with Google Maps®
- Continuously evolving, incorporating additional data layers

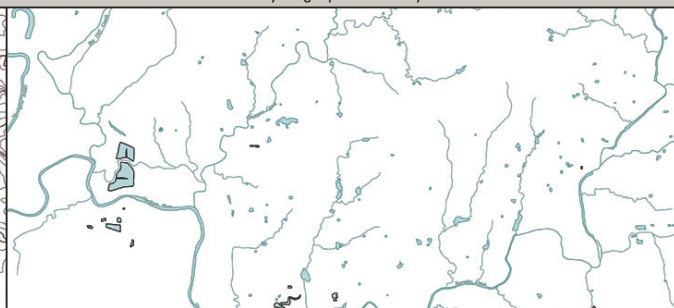
Powered by *The National Map*

In 2001, the USGS published a new vision for topographic mapping of the Nation: *The National Map*.² The objective of *The National Map* is to ensure current, consistent, seamless, and integrated geospatial data for the Nation through Federal, State, local, and Tribal partnerships. In 2009, the USGS National Geospatial Program (NGP), working with partners in the public, private, and academic sectors,

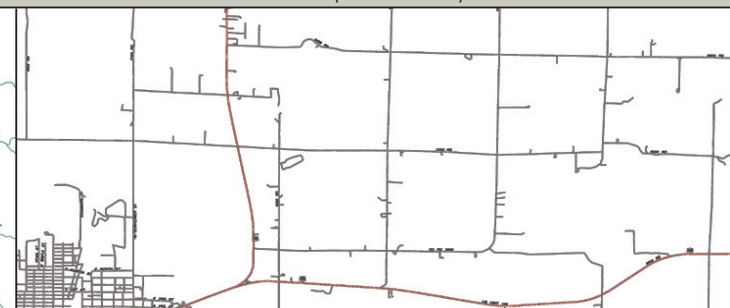
Elevation data layer



Hydrographic data layer



Transportation data layer



developed capabilities to rapidly produce US Topo maps from *The National Map*. These new maps are vital for homeland security, research, industry, disaster response, recreation, land and resource management, and many other applications.

A US Topo map includes all of the content of the earlier “Digital Map—Beta” plus integrated contours and hydrographic features.

The image map layer of US Topo maps is based on U.S. Department of Agriculture 1-meter ground resolution National Agriculture Imagery Program (NAIP) orthoimagery, a data resource that is tone-balanced, publicly available, and nationally consistent. US Topo production and revision will follow the NAIP acquisition cycle (ultimately 3-years) to complete conterminous national coverage. Data sources for Alaska, Hawaii, Puerto Rico, the U.S. Virgin Islands, and the Pacific Territories are being assessed for eventual production of US Topos.

As the US Topo product evolves, the USGS will incorporate additional geographic data layers from *The National Map*. Public feedback about US Topo will assist the USGS in improving the US Topo concept.³

As one of the cornerstones of the U.S. Geological Survey's (USGS) National Geospatial Program, *The National Map* is a collaborative effort among the USGS and other Federal, State, local, and Tribal partners to improve and deliver topographic information for the Nation. *The National Map* has many uses ranging from recreation to scientific analysis to emergency response. *The National Map* is easily accessible for display on the Web, as products and services, and as downloadable data. The geographic information available from *The National Map* includes orthoimagery (aerial photographs), elevation, geographic names, hydrography, boundaries, transportation, structures, and land cover.



Other types of geographic information can be added within the *The National Map* Viewer or brought in with *The National Map* data into a Geographic Information System to create specific types of maps or map views. *The National Map* is a significant contribution to the National Spatial Data Infrastructure (NSDI) and provides high quality, integrated geospatial data and improved products and services including new generation digital topographic maps. *The National Map* underpins the USGS Science Strategy, which is based on a systems approach to help address multifaceted issues, provide better understanding of earth processes, and evaluate broad causes and consequences of the use and management of natural resources. *The National Map* promotes interdisciplinary science by providing nationally consistent, trusted geospatial data, and establishing a consistent national geographic context.

US Topo



More Information

¹ The USGS Store (<http://store.usgs.gov/>)

² US Topo and “Digital Maps—Beta” (<http://nationalmap.gov/ustopo/>)

US Topo and “Digital Maps—Beta” Download (<http://nationalmap.usgs.gov/ustopo/quickstart.pdf>)

³ *The National Map* (<http://nationalmap.gov/>)

NAIP (http://www.fsa.usda.gov/Internet/FSA_File/naip_2009_info_final.pdf)

